



OPERATION MANUAL

**50' Pneumatic Light Mast on 21 Foot
Trailer**

WCDE-11-PLM50 SERIES

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Deploying Mast:

- 1.) Choose a location that is as close to level as possible to position the trailer. Drop the trailer from the tow vehicle using the two stationary jacks located on the front of the trailer (these will be the jacks that do not extend). Ensure that the safety chains and break-away cable have been disconnected from the tow vehicle.
- 2.) Once the trailer is disconnected from the hitch of the tow vehicle, level the trailer front to back and side to side. This is a *very important* step as the levelness of the mast is critical when this unit is in operation. There are (6) jacks on the trailer for leveling purposes, three per side of the trailer, and are welded to the body of the trailer (these do not extend).



- 3.) Once the trailer is level, un-latch the mast head by going to the rear of the trailer and pulling the mast head retainer pins away from the rear of the trailer and turning them 90 degrees. The pins will remain in the pulled back position. ***Make sure these pins are not engaged into the head before deployment of the mast. If the mast head retaining pins are still installed during deployment, damage to the mast and/or head can and/or will result.***



- 4.) Once the mast head is un-latched, deploy the outriggers. This is done by pulling the retainer pins from the top side of each out rigger up enough to release the outrigger, then slide the outrigger outwards. ***Do not lock the retainer pin in the up position when deploying the outriggers. Locking the outrigger retaining pin out while extending the outriggers will allow the outriggers to slide out of the guides and may result in personal injury and damage to the outrigger and/or trailer.*** Pull the outrigger out until the retainer pin locks into the outrigger. When cranking up the outrigger, keep slight pressure on the jacks. The outriggers are for stabilization and **are not** for leveling purposes.



- 5.) At this point, please verify that the mast air valve is in the drain position. This valve is located inside the gray box attached to the orange control box. ***Please verify that this valve is in the drain position***

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Once all breakers, including the main breaker are on, close the panel.



- 6.) Once your trailer is level and the outriggers are fully deployed, it is time to power on the unit. Locate the provided keys for the generator. Insert the key into the generator and start the generator by turning the key clockwise. Once the generator is powered on and running, turn on the main breaker located on the front of the generator. **Note: Check to ensure the fuel tank has an adequate amount of fuel before running the generator.**

- 8.) Check the top of the orange box and you should see a red beacon light flashing. If you do not see this light flashing, make sure the mast retention pin is **NOT** engaged. The mast retaining pin is located on the right side of the orange box by the walk deck. You will notice a black pistol grip level handle. Once located, ensure the retaining pin is pulled all the way back towards the operator. Once this is confirmed, the beacon on top of the orange job box should be blinking red. The mast will not elevate horizontally if the pin is engaged.



Once you have verified that the...

- ☐ Generator is running
- ☐ Mast retainer pin is in the open position
- ☐ Mast air valve is in the drain position
- ☐ Red LED beacon is blinking
- ☐ Trailer is level
- ☐ Mast is dropped from the tow vehicle

...the mast is ready for deployment.

- 7.) Go to the electrical panel located on the opposite side of the trailer. Use the provided key to unlock the electrical panel and turn on all breakers in the panel.



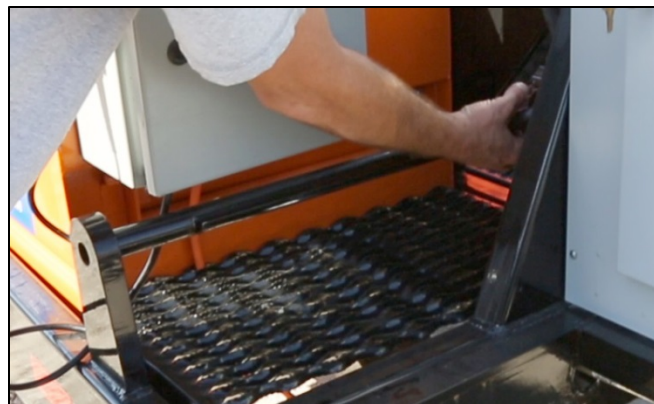
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- 9.) Inside the gray box on the side of the orange job box is an air valve and an orange pendant. The pendant operates the hydraulics that control horizontal movement of the light mast. There is an up and a down button. Up raises the mast to the upright position for deployment while down lowers the mast for transport/storage. At this point, the mast is ready to be elevated. Press the up button on the orange pendant and the mast will start to elevate horizontally to its upright position.



Elevate the mast to its full 90 degrees and **verify** that the mast is level.



- 10.) Once mast is elevated and level, install the mast retaining pin. Push the mast retaining pin opposite of the operator, and then rotate the pin down until it locks into place. The red beacon light will stop cease operation once the pin is locked into place. At this point, the hydraulics will no longer function while the mast is elevated.
- 11.) Unlock the orange box and open and locate the air compressor. On the air compressor, locate the on and off switch situated by the air regulator. Make sure this switch is on. The air compressor should be running. Move the air valve from drain to deploy. Once switched from drain to deploy, the compressor will start to build pressure and start to vertically elevate the mast. ***Note your mast pressure should remain at 37-38 PSI. Over pressuring the mast will cause damage to the mast that can result in injury or death.*** The mast can take up to 20 minutes to fully deploy and it is normal for several compressor cycles during this time. Once fully deployed, the compressor should only cycle every 20 minutes for 15 seconds.

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12.) Once the mast is fully deployed, it is time to power on the lights. This is done by flipping the four switches located on the left top side of the panel box. The lights are wired in banks of four, from left to right. Each switch operates a single bank: left, center left, center right, right. With this setup, operators can choose the amount of illumination required for the specific task at hand.

At this point the mast is fully deployed and ready for use.

WARNING: The light mast at 50' is rated for wind speeds up to 25 MPH. If deployed in wind speeds higher than this, the mast must be guyed or the mast will need to be lowered to 25'. At 25' the mast is rated for 40 MPH. Any higher wind speeds, and we suggest that you lower the mast completely. Failure to do so will result in damage to the mast.

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Lowering the mast:

- 1.) When preparing to lower the mast, open the orange box and turn the compressor off. There is a switch located on the compressor regulator. Make sure this switch is in the off position.



Once confirmed, turn the air valve located in the gray box to drain. *It may take the mast 10 to 15 minutes to fully collapse. This is normal.* Note: Leave the valve in the drain position so it will be ready for the next use.



- 2.) Turn the lights off by flipping the switches off. They are located on the top left side of the panel.



- 3.) The mast should be in the lower position and ready to lay the mast down. Remove the mast retaining pin located on the right side of the orange job box by the walk way. There is a black pistol grip handle on the retaining pin. Rotate it up and slide it back to the operator until the pin is clear of the mast.



- 4.) Once retaining pin is clear, locate the orange pendant inside the gray box with the air valve. Depress the down button on the pendant until the mast is lowered.

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- 5.) Lock the mast head into place by going to the back of the trailer and turning the latching pins 90 degrees. These pins will drop into place and lock the head from moving while in transport.



- 6.) At this point, the outriggers can be retracted. Ensure each outrigger locks into place and the jacks have proper ground clearance.



- 7.) The trailer is now ready for hookup to a tow vehicle. Once tied to a tow vehicle, raise all leveling jacks. Ensure that safety chains, brake-away device, and trailer lights are connected. Test trailer lights to ensure stop/tail/brake lights work before operating vehicle on public roadways.

If you have any questions about your new device please call the Manufacture.